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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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PATTON BOGGS LLP 1801 CALIFORNIA STREET SUITE 4900 DENVER, CO 80202				
EXAMINER				
FRISTOE JR, JOHN K				
ART UNIT		PAPER NUMBER		
3753				
MAIL DATE		DELIVERY MODE		
04/27/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/575,443

Applicant(s)

SNEH, OFER

Examiner

JOHN K. FRISTOE JR

Art Unit

3753

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 139-144 and 153-165 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 139-144, 153-158 and 163-165 is/are rejected.
- 7) ☒ Claim(s) 159-162 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 8/17/2006
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group II, claims 139-144 and 155-165 in the reply filed on 3/6/2009 is acknowledged.

Information Disclosure Statement

2. The information disclosure statement filed 8/17/2006 is acknowledged by the examiner.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 139 and 140 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 1,528,074 (Ralston). Ralston discloses a method of operating a fluid control valve comprising mechanically holding (via element 17) the valve (E) closed in an inactive state (figure 1) in which it cannot be operated pneumatically (via element 15), changing the valve (E) to an active state (figure 2) in which it can be opened and closed pneumatically (via element 15), opening and closing the valve pneumatically (via element 15), and pneumatically (via element 15) actuating a mechanical valve actuator (reciprocating shaft).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 141 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 1,528,074 (Ralston) in view of U.S. Pat. No. 4,103,864 (Hagendora). Ralston discloses a method of operating a fluid control valve comprising mechanically holding (via element 17) the valve (E) closed in an inactive state (figure 1) in which it cannot be operated pneumatically (via element 15), changing the valve (E) to an active state (figure 2) in which it can be opened and closed pneumatically (via element 15), opening and closing the valve pneumatically (via element 15), and pneumatically (via element 15) actuating a mechanical valve actuator (reciprocating shaft) but lacks a spring mechanically holding the valve closed. Hagendora teaches a method of operating a fluid control valve by mechanically holding the valve closed with a spring member (26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of operating a fluid control valve of Ralston by holding the valve closed with a spring member as taught by Hagendora since using a known method of biasing a mechanical member will yield a predictable result.

7. Claims 142-144, 153-158, 163, and 164 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 1,528,074 (Ralston) in view of U.S. Pat. No. 3,957,244 (Chauvigne). Ralston discloses a method of operating a fluid control valve comprising mechanically holding (via element 17) the valve (E) closed in an inactive state (figure 1) in which it cannot be operated pneumatically (via element 15), changing the valve (E) to an active state (figure 2) in which it can be opened and closed pneumatically (via element 15), opening and closing the valve pneumatically (via element 15), and pneumatically (via element 15) actuating a mechanical valve actuator (reciprocating shaft) but lacks the valve being a

diaphragm. Chauvigne teaches a method of operating a fluid control valve comprising holding a valve diaphragm (4) closed. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of operating a fluid control valve of Ralston by making the valve a diaphragm as taught by Chauvigne since using a known valve type would yield a predictable result.

8. Claim 165 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 1,528,074 (Ralston) in view of U.S. Pat. No. 6,042,652 (Hyun et al.). Ralston discloses a method of operating a fluid control valve comprising mechanically holding (via element 17) the valve (E) closed in an inactive state (figure 1) in which it cannot be operated pneumatically (via element 15), changing the valve (E) to an active state (figure 2) in which it can be opened and closed pneumatically (via element 15), opening and closing the valve pneumatically (via element 15), and pneumatically (via element 15) actuating a mechanical valve actuator (reciprocating shaft) but lacks the method comprising the pulsed delivery of gas into an atomic layer deposition apparatus. Hyun et al. teach an ALD apparatus (Abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of operating a fluid control valve of Ralston by controlling the flow of fluid into a ALD apparatus with a valve as taught by Hyun et al. since the valve can control the flow of fluid into any apparatus including an ALD apparatus.

Allowable Subject Matter

9. Claims 159-162 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 4,132,237 (Kennedy et al.) disclose a method of operating a valve.

U.S. Pat. No. 2,280,615 (Baldwin) discloses a method of operating a valve.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John K. Fristoe Jr. whose telephone number is (571) 272-4926. The examiner can normally be reached on Monday-Friday, 7: 00 a.m-4: 30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin O. Evans can be reached on (571) 272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John K. Fristoe Jr./
John K. Fristoe Jr.
Primary Examiner
Art Unit 3753

JKF